





## PROSPECTUS

### Rosedale Coal & Clay Products Company LIMITED

Incorporated under the Laws of the Province of Alberta

AUTHORIZED CAPITAL: \$1,500,000.00

Divided into 300,000 shares of \$5.00 each

HEAD OFFICE, CALGARY, ALBERTA

#### BOARD OF DIRECTORS

WILLIAM GEORGESON, - - - - - President

J. F. MOODIE - Vice-President and Managing Director

WILLIAM CARSON - - - - - Treasurer

DR. GEORGE PIRIE

C. STIRRETT

H. H. MOORE, D.L.S. - - - - - Assistant Manager

Secretary, D. L. REDMAN

Consulting Engineer, B. W. DUNN, S.B., E.M.

Acting Chief Engineer, K. MOODIE, B.A., Sc.

#### BANKERS:

THE BANK OF BRITISH NORTH AMERICA

#### SOLICITORS:

LOUGHEED, BENNETT, McLAWS & Co., Calgary, Alberta

#### AUDITORS:

WEBB, READ, HEGAN, CALLINGHAM & Co.



Monarch Camp, June 27th, 1914.

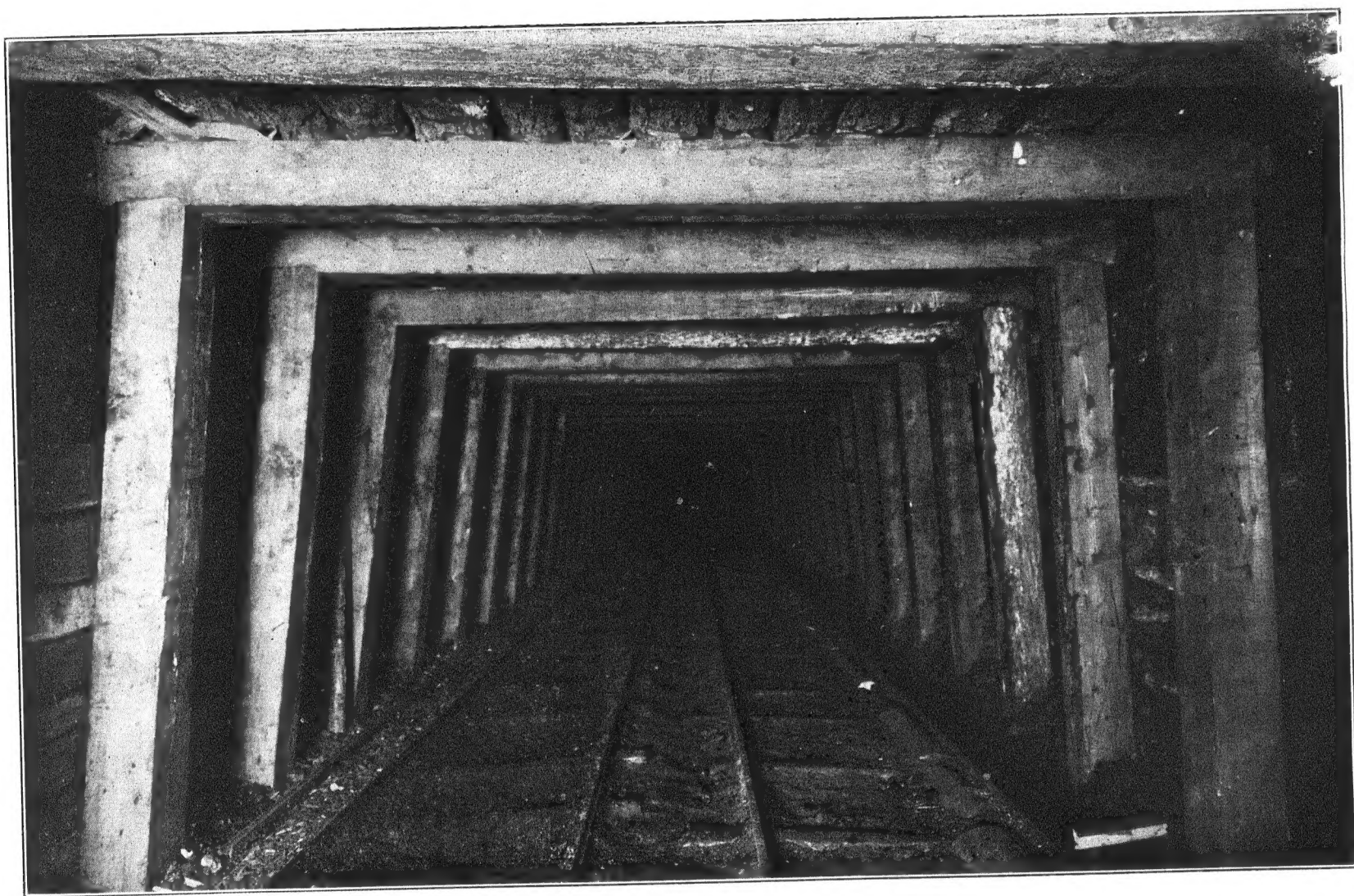
Mr. J. F. Moodie,  
Calgary, Alta.

Dear Mr. Moodie:—

From developments here I am more inclined than ever to think that you have an oil proposition at Rosedale. However, a few days more and I will be in a position to give you a very good cross section that you can apply with reasonable accuracy to your Rosedale property.

(Signed): B. W. DUNN.





THE MAIN ENTRY



10

11

## Rosedale Coal & Clay Products Company, Limited

---

The Company is Incorporated under the Laws of the Province of Alberta, with an authorized capital of \$1,500,000, divided into 300,000 shares of a par value of \$5.00 each.

One hundred shares has been fixed as the qualification of a Director.

The names, occupations, and addresses of the proposed Directors are as follows:—

WILLIAM GEORGESON, Merchant, Calgary, Alberta, President  
J. F. MOODIE, Broker, Calgary, Alberta, Vice-President and Managing Director.

WILLIAM CARSON, Merchant, Calgary, Alberta, Treasurer.  
C. STIRRETT, Broker, Calgary, Alberta.

DR. GEORGE PIRIE, Calgary, Alberta.

H. H. MOORE, D.L.S.        -        -        -        Assistant Manager

The Company is placing 60,000 shares of a par value of \$5.00 each of their Treasury Stock on the open market expecting that the offer will meet with a favourable reception and feeling confident that they are offering one of the best propositions to the investor that has been placed before the public.

They have a property, which as a coal mine, is past the development stage and is already producing; they have VALUABLE POTTERY, BRICK AND CLAY HOLDINGS, and THEIR PROPERTIES GIVE INDICATIONS OF PETROLEUM WEALTH WHICH ARE AS PROMISING AS ANY OTHER KNOWN OR PROSPECTIVE

FIELD IN ALBERTA. This statement is supported by the report of B. W. Dunn, S.B., E.M., which appears on page 5 of the Prospectus.

The Company is carefully formed; is fortunate in possessing one of the strongest boards of Directors; and is a proven undertaking from the start. The proceeds of the stock issue are to be used for the payment of obligations now incurred, for equipment purposes and development work in the mine, in drilling for oil, and in developing the clay and pottery holdings. Enough wet gas has already been struck at a very shallow depth to supply light. The opinions of both B. W. Dunn, S.B., E.M., and E. H. Cunningham Craig, B.A., F.G.S., coincide as to the coal values and the pottery and brick possibilities. A careful perusal of this prospectus will convince any thinking person that a desirable proposition has been placed before the public by the Rosedale Coal and Clay Products Company, Limited.

The Company owns 14,000 acres of leasehold lands, owns the townsite of Rosedale, has built splendid quarters for miners and others connected with the mine, and has been producing and marketing coal for nearly two years. Their coal is already in demand wherever it has been used.

The Company is unique in that they are now offering stock for the first time. At their own expense they developed their holdings and proved them to be permanent and income producing before asking the public to take any interest in the undertaking.

The Company is the owner under Lease from the Government of the Dominion of Canada, of all coal, mines, beds and seams underlying approximately 14,000 acres of land at Rosedale in the Province of Alberta, on the Red Deer River comprising the following lands:—

Sections 1, 2, 3, 4, 5, 6, 9, 10, 15 and 16 in Township 29, Range 19, West of the Fourth Meridian.

West Half of Section 13, all of Sections 14, 15, 22 and 28, lying North and East of the Red Deer River, and all of sections 23, 24, 25, N. E.  $\frac{1}{4}$  26, all of 27, 31, 32, 33, 34, 35 and 36, in Township 28, Range 19, West of the Fourth Meridian, lying North and East of Red Deer River.

The Townsite of Rosedale is on the North West  $\frac{1}{4}$  of Section 28, Township 28, Range 19, West of the 4th Meridian, and is paid for in full and the Department has advised the Company that the title will be issued immediately.

The Company has the right to acquire in addition 1,230 acres of surface rights. There are very valuable clay deposits on this land suitable for brick, tile, pottery and other clay products, the working of which would in itself make the Company a success without considering the other resources owned.

B. W. Dunn, S. B., F.M., the well-known geologist and mining engineer, reported on the Company's holdings as follows:—



A ROOM IN THE ROSEDALE WORKINGS

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

DATE

BY

10/1/01

10/1/01

10/1/01



# Report on the Property of the

## ROSEDALE COAL & CLAY PRODUCTS COMPANY, Limited

### By B. W. Dunn, E.M.

Mr. W. Georgeson, Sr.,  
Calgary, Alberta, 28th March, 1913.

Dear Sir:—

As per your request, the following is my report on the Rosedale Coal and Clay Products Company's, Limited, property.

The property consists of a lease under Coal Lands Act for a period of Twenty-one (21) years, dating from December 1911, (with option of renewal with an annual rental fee of One Dollar per acre, for the following parcels of land:—

	Section		Section
Township 29 North	15		36
	16		35
	9		34
	10		33
	1	N. $\frac{1}{4}$ of	
	2		N.E. $\frac{1}{4}$
	3		N.W. $\frac{1}{4}$
	4		S.W. $\frac{1}{4}$
	55		S.E. $\frac{1}{4}$
Range 19 West 4th M.	N.E. $\frac{1}{4}$	N.E. $\frac{1}{4}$ to river	31
	N.W. $\frac{1}{4}$	N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	
	S.E. $\frac{1}{4}$		
	6		
		N.E. $\frac{1}{4}$	25
			26
			27
		N. $\frac{1}{2}$ south to the river	28
			29
		N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	24
			23
		N. $\frac{1}{2}$	
		N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$	
		120 acres of S.E. $\frac{1}{4}$	22
		W. $\frac{1}{2}$	13
		E. $\frac{1}{2}$	15
		E. $\frac{1}{2}$	
		N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	
		S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	
		S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	
		N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$	
		S.E. $\frac{1}{4}$ of S.E. $\frac{1}{4}$	14

Surface rights to following parcels of land situated in Township Twenty-Eight (28) North, Range Nineteen (19), West of the 4th Meridian:—

W.  $\frac{1}{2}$  of Section 33.

N.  $\frac{1}{2}$  of Section 28.

W.  $\frac{1}{2}$  of Section 27.

E.  $\frac{1}{2}$  of N.E.  $\frac{1}{4}$  of Section 21.

N.W.  $\frac{1}{4}$  of Section 22.

N.  $\frac{1}{2}$  of S.W.  $\frac{1}{4}$  of Section 22.

E.  $\frac{1}{2}$  of N.E.  $\frac{1}{4}$  of Section 15.

S.E.  $\frac{1}{4}$  of Section 14.

N.W.  $\frac{1}{4}$  of S.W.  $\frac{1}{4}$  of Section 14.

N.E.  $\frac{1}{4}$  of S.W.  $\frac{1}{4}$  of Section 14.

S.E.  $\frac{1}{4}$  of S.W.  $\frac{1}{4}$  of Section 14.

And the islands in the river in Range 19 W.

This property, comprising approximately Fourteen Thousand Four Hundred and Forty-one (14,441) acres is situated with the exception of the islands, along the North side of the Red Deer River.

Rosedale, the post office name of the mine's townsite, is about four miles, as the crow flies, from Drumheller and about one-half mile from the Canadian Northern Railway line to Calgary.

The property can be reached from Calgary at the present time by two routes; North on the Canadian Pacific to Lacombe then to Stettler, then via Canadian Northern from Stettler to Drumheller and Rosedale. The C.N.R. has since been completed to Calgary and the C.P.R. is to build through in the near future. But by far the quickest and most convenient route is by automobile from Calgary to Irricana, thence along the valley of the Rosebud Creek to Rosedale. This latter route occupies about five hours and the former two days, though the distance between Calgary and Rosedale is between eighty and ninety miles.

The officials of Canadian Northern Railway have announced that the line to Calgary will be in operation June 1st, 1913, which will give direct connections to the markets of the south.

The general surface of the land in this district is rolling prairie and the strata consists of layers of sandstone, shale, bands of ironstone and lignite, the whole being capped by glacial clays through which the Red Deer River has eroded a canon about one mile wide and three hundred to four hundred feet deep. The different colours of the sandstone and shale-rock with the dark bands of coal and red bands of ironstone gives the valley an appearance of a miniature Grand Canon of the Colorado River.

The maps and sections of the strata are platted as horizontal though in reality there is a slight dip to the West at this point.

I will give for convenience a section through the strata which is typical of the whole property (see plate 3 of sections):—

Stratified clay .....	50 ft.	to 150 ft.
Earthy clay (Gypsum crystall).....	8 ft.	0 in.
Loose sandstone .....	3 "	0 "
Iron stone .....	0 "	2 "
Sandy clay shale .....	10 "	0 "
Loose sandstone .....	3 "	10 "
Containing streaks of clay.		
Loose sandstone containing irregular blocks of a harder and older sandstone.....	2 "	0 "
Band of Tie stone.....	0 "	4 "
Clay shale .....	11 "	0 "
Iron stone .....	1 "	0 "
Clay shale .....	5 "	5 "
Lignite .....	0 "	9 "
Loose clay shale .....	3 "	8 "
Lignite .....	0 "	6 "
Shaley sandstone .....	5 "	3 "
Iron stone .....	1 "	to 6 "
Coal .....	7 "	3 "
Clay shale .....	10 "	9 "
Ironstone .....	1 "	0 "
Lignite .....	2 "	0 "
Clay shale .....	2 "	4 "
Sandstone with clay streaks.....	5 "	7 "
Ironstone .....	0 "	2 "
Sandstone, iron stained .....	3 "	5 "
Lignite .....	0 "	14 "
Sandstone, clay streaks .....	4 "	0 "
Ironstone .....	0 "	3 "
Sandstone, clay streaks .....	2 "	10 "
Ironstone .....	0 "	6 "
Lignite .....	3 "	3 "
Sandstone, clay streaks .....	5 "	3 "
Sandy clay shale .....	4 "	9 "
Loose sandstone containing irregular bands of ironstone varying in thickness from one to six inches. Also contains large blocks of a harder and older sandstone..	38 "	0 "

Below this lies the nine foot seam of coal, or lower seam. This strata is known as the Edmonton series, a lower sub-division of the Laramie formation which is the top of the cretaceous epoch.

All of the coals and lignites of the Western Provinces are found in this epoch.

The two valuable seams of coal on this property are non-coking, but of exceptional value for domestic use.

The thickness of the top seam varies from 3 ft. 8 in. to 4 ft. 6 in. clean coal, the lower seam from 8 ft. to 9 ft. clean coal. Both extend in a horizontal bed through the entire property.

The general appearance of the coal from the two seams is very much the same; vitreous lustre and conchoidal fracture. Both coals when crushed form a black powder which does not soil the hands nor do they slack to any appreciable quantity as most lignites do. Both coals burn to a small quantity of light red ash, forming a light colored smoke and no soot. When used in a furnace or stove gives off an intense heat and when all dampers are closed will retain live coals from twelve to twenty-four hours. All these characteristics make it a very valuable domestic coal.

Chemical analysis at the points where exposed would be of little value as the erosion of the river and other surface water has carried more or less solid and liquid matter into the seams, hence the ash and moisture would be too high.

I have arrived at a practical chemical analysis in the following way:—

In the furnace and kitchen range at my home I have weighed the coal consumed and the ashes that remained from three tons of this coal and find the percentage of ash to be five.

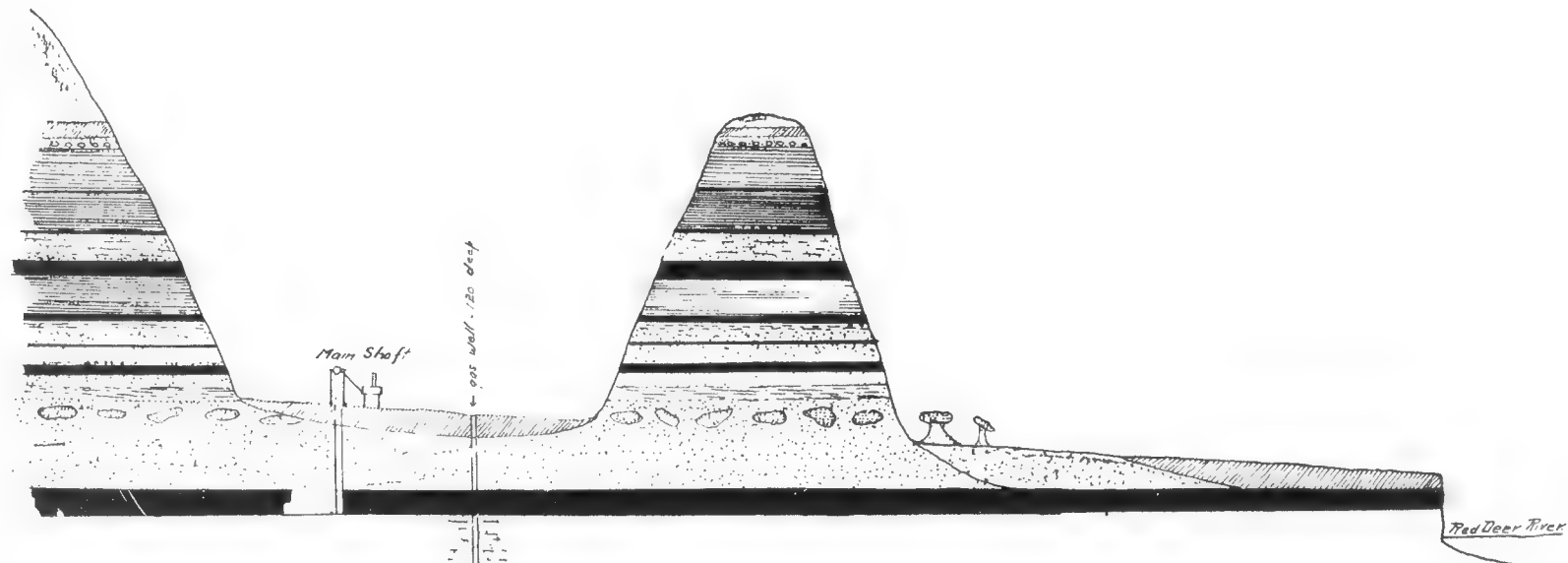
Heating several samples in closed tubes (destructive distillation) I have found the fixed carbon and ash to be 65.25 per cent. Deducting the five per cent. ash leaves 60.25 fixed carbon. Moisture runs from 5 per cent to 12 per cent, the latter from the weathered exposures.

The sulphur quantity is insignificant.

The top seam has been developed through two adit tunnels, one being used for ventilation.

At the entrance to the tunnel the seam is about seven feet thick including parting in the rooms that are opened west of the main entry north, the clay parting has increased so that the clean coal has a thickness of 3 ft. 8 in. The other rooms in this seam have about 4½ ft. of clean coal. Amount of development work is the same as on the lower seam.

The lower seam is being developed through a 10 ft. x 15 ft. three compartment shaft, forty feet deep. Two main entries varying from 18 to 30 feet apart, extending north 375 feet from the bottom of the shaft connected at intervals of 45 feet (see map) constituted the first development work on this seam. At a point 255 feet north of the main shaft two additional entries 25 feet apart, bearing about 9 degrees North of East for 180 feet from which five rooms are opened



- Coal
- Sandstone.
- ▨ Clay shale.
- ▩ Earthy clay
- ▤ Iron stone (1" to 1' thick)
- ▥ Brick and Tile clay

## VERTICAL CROSS SECTION

on  
East & West  
line

### SHOWING STRATA

between Shaft and River

Horizontal scale 1" = 820'

Vertical " 1" = 50'

3/14/13  
B. A. Dunn, R. P.



50 to 850 ft  
brick and  
tile clay  
caps strata

5' plastic yellow clay with  
gypsum crystals  
3 sandstone

8" lignite.

6" lignite.

7.2 feet coal. 1 to 3 partings.

2' lignite.

4" lignite.

3.2' lignite.

9 feet of coal 1 parting.

2' lignite.

Brick and  
tile clay  
cap

earthy clay.

argillaceous shale.

" "

shaley sandstone.

argillaceous shale

friable sandstone

" "

" "

shaley

sandstone  
Containing blocks of  
an older sandstone  
hard to break  
shows false bedding.

sandy clay. (varies)

dark brown clay.

sandstone as above

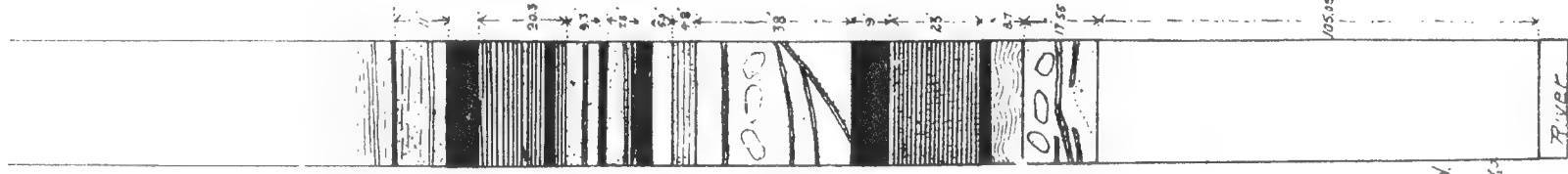
loose clay zone  
contains material  
from strata above.

# PLATE showing VERTICAL CROSS SECTIONS of the STRATA at the Rosendale Coal & Clay Products Co's -property-

scale 1 in. = 30 ft.

leveling with Dumont Transit 5' in.  
A. W. Bunker Dr.

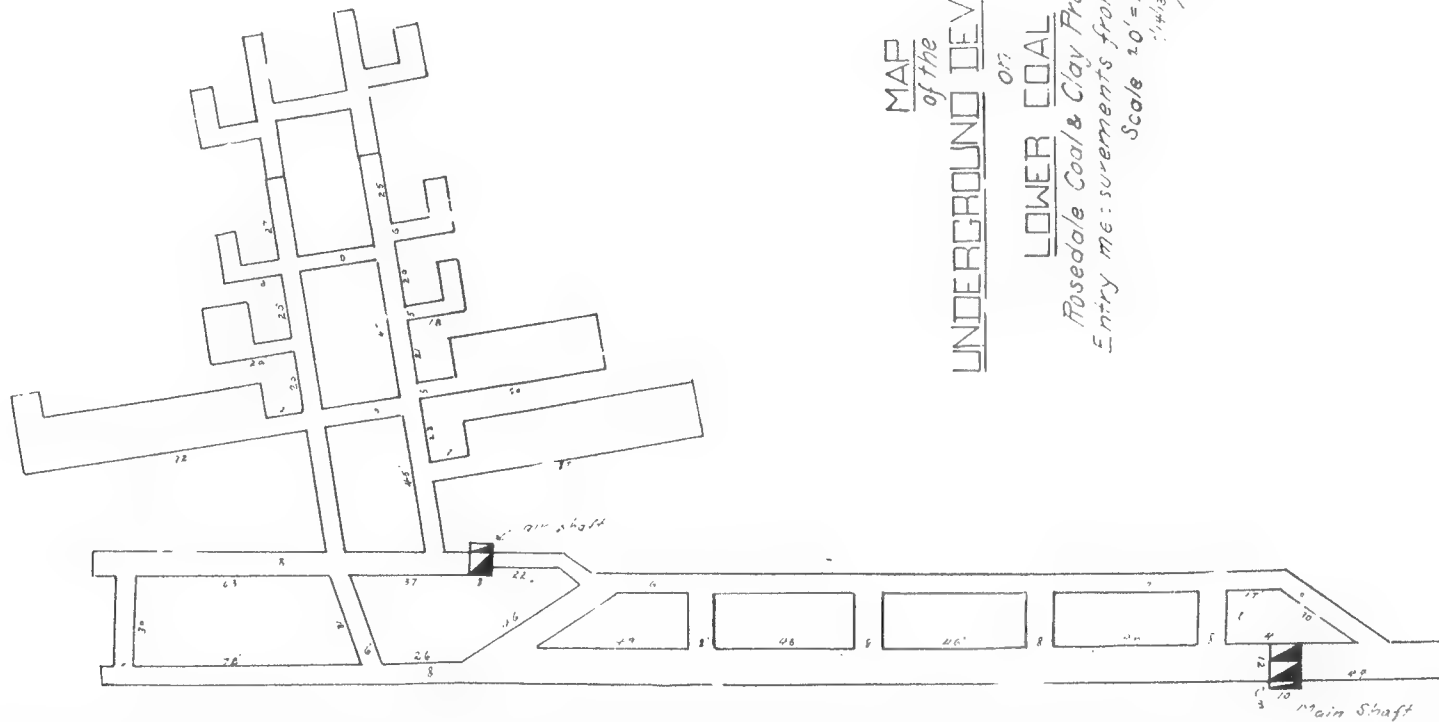
NOTE: Strata is practically hor-  
izontal and undisturbed.  
Red lines represent  
iron-stone  $FeCo$  to  $FeO.H_2O$



(C)





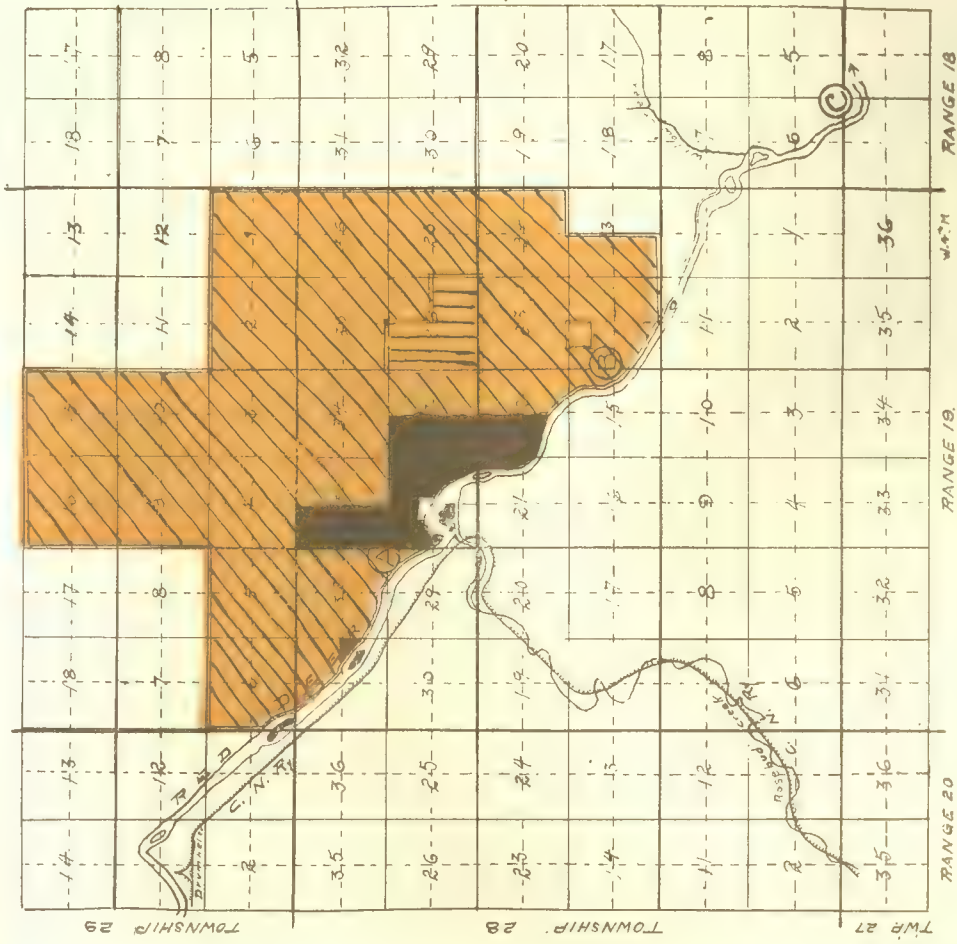


# MAP *of the* UNDERGROUND DEVELOPMENT ON

LOWER COAL SEAM  
Rosedale Coal & Clay Products Co's Mine  
Entry measurements from St. Pearce's Map  
Scale 20' = 1" 1/4  
B.W. Dunn C.E.

3 B. W. Dunn C. 18.





Coal lease.

Coal lease & Surface rights.

Hudson Bay Co

Others.



A B C

Geological sections shown on another plate



...

...

...

out on the north side and four on the south side. The extension of these entries and mining coal from these rooms constitutes the present development work on this seam.

There is a white clay parting in the centre of this seam which varies in thickness from 6 inches to 1 foot.

In the rooms just referred to the parting is only 6 inches and the clean coal is over 9 feet thick.

This parting affords a good breaking space for mining the coal. The bottom coal is first removed and the top will almost come down of its own weight.

There is an air shaft on the East main entry that affords ventilation for the present openings.

Timber for mining purposes can be secured from points above on the Red Deer River.

The mine is remarkably free from gas though this will have to be watched as the entries extend under the heavy over-lying strata.

There is a limited zone, about the centre south edge of property, that contains beautiful specimens of petrified wood. Trunks of trees varying from 1 foot to 3 feet in diameter and branches and leaves of a tropical vegetation are completely changed to stone.

The surface equipment consists of the following:—

Engine house containing portable derrick hoist and boiler.

Carpenter shop and smithy combined, containing all necessary tools for work at hand.

Warehouse.

Kitchen and dining hall.

Ice house.

Stable.

Office.

General merchandise store containing post office.

All these are good, substantial, one-storey frame structures.

The coal at present is loaded in wagons from the tippie, and ferried across Red Deer River and loaded in cars on the C.N.R. spur.

As the only coal that competes with this coal is known as Galt coal and mined at Lethbridge I will give freight rates from Lethbridge to principal outside markets:—

Lethbridge to Calgary .....	\$1.80 per ton
Lethbridge to Saskatoon .....	3.95 per ton
Lethbridge to Winnipeg .....	4.35 per ton
Lethbridge to Prince Albert .....	4.40 per ton

From Rosedale to Calgary when the Canadian Northern Railway is completed the rate will be \$1.20 per ton, and to all other intermediate points in like proportion. Competitive coal rate from Lake Superior ports to Winnipeg is \$3.00 per ton.

Under these conditions imported coals would not affect your Winnipeg market.

## **THERE ARE MANY INDICATIONS THAT BOTH GAS AND OIL HAVE IMPREGNATED THIS STRATA.**

One of the clay shales that lies under the top seam of coal is impregnated with residual matter from petroleum, and the bottom of this shale has a layer of the mineral ozokerite.

In a well that was originally put down for water (without success) a flow of natural gas was encountered at 120 feet that furnishes the camp buildings with light.

The many bands of ironstone have formed a cap over the strata that will not allow the escape of gas and I believe at moderate depth a flow of sufficient volume for the Company's use could be obtained. However, a further examination of the strata below (down the river) would be necessary before any sum of money were laid out on this work.

The clays and clay shales on the property in my estimation are nearly as valuable as the fuel.

The top clays have the plasticity and composition that enter into the manufacture of high grade brick and hollow tile.

The shales in the strata below also have properties that make them useful in the building trades—though they vary at different points on the property, for instance, the clay shale under the top seam at points is very full of organic material, then changes to a homogeneous clay shale and again to a sandy shale. All of these change a little.

I did not make any fire test of these shales, but there is plenty of evidence that they will burn,—forming any desired quality of tiling. There are many places on the property along the Red Deer River where at some previous period escaping gas has been ignited and burned these shales so that beds fifty and sixty feet thick are in reality tiling and ornamental stone of different colors from a dull grey-buff to light brick red and structure from coarse to vitrious.

I believe in the hands of an expert ceramist these clays and shales could be mixed so that any of the fireproofing building materials could be made on the spot.

In one of the earth clays that overlie the strata there is a band of yellow plastic clay that contains gypsum crystals, and larger crystals come from the earthy clay above. This latter crystalization comes from the mineral waters below dissolving the calcium sulphate and carrying it up through the clay, evaporating, leaving crystals in the clay. I did not find any important bed of gypsum, though this may be possible in the vicinity.

To secure better results than have been attained at the mine I suggest that the lower seam be attacked at a point down the river at a point where you will have an elevation of sixty to eighty feet above the river.

A suitable plant to handle 1000 tons per day can be put up for Sixty to One Hundred Thousand Dollars. This would include coal cutting, haulage, ventilating machinery and storage bins,— the amount of money depending on character of machinery, labor, etc., etc.

This plant so situated above the river would allow the coal to drop from bins to cars by gravity, and the cost per tone to put on cars would be from 85c to \$1.00 per ton net.

Considering quantity and the high grade character of the coal, the great demand for building material such as this property affords, and the fuel that makes it possible for cheap manufacture, I think you have a very valuable property and I do not hesitate to recommend it to any concern that desires such a proposition.

**THE FACT THAT A VOLUME OF GAS LIES UNDERNEATH, AND THE POSSIBILITIES OF OIL, MAKE IT VERY ATTRACTIVE.**

There is also a possibility of a water route to Prince Albert,— of this I know little—but if it could be developed it would add much to the value of the property.

March 28th, 1913.

B. W. DUNN, E. M.

Calgary, Alta., March 29th, 1913.

Mr. W. Georgeson, Sr.,  
Calgary, Alta.

Dear Sir:—

In my report on your property I failed to mention that there had been no search or exploratory work done for coals lying in the series below those exposed at your place.

The Dominion Government's Geological map that is attached to my report shows a vertical section, that can with slight modification be applied to conditions underlying your property and suggests the probability of the higher grade bituminous coals of the "Belly River" and "Kootenay" series being found there.

Yours sincerely,

B. W. DUNN, E.M.

---

Report of  
**ROSEDALE COLLIERY, Alberta, Canada**  
**E. H. Cunningham Craig, B.A., F.G.S.**  
Consulting Geologist

---

### INTRODUCTION

The property lies on the northern bank of the Red Deer River at a distance of about eighty miles from Calgary in an east-north-east direction.

The Canadian Northern Railway from Calgary reaches the valley to the Red Deer River at this point, and turns up the valley.

The valley is a wide canon with steep sides, but with broad stretches of alluvial land bordering the river. Geological sections on both sides of the valley are excellent, and the various strata can be traced without interruption for miles.

During the few hours I spent in this locality I was able to examine a considerable extent of ground, and though it is impossible to write a detailed report without maps and topographical details of

the area, I was able to satisfy myself that the property is a valuable one, and has excellent prospects of proving a commercial success.

#### GEOLOGICAL STRATA:

The strata exposed belong to the Edmonton series of the cretaceous formation, and consist of estuarine and deltaic deposits. There are many alterations of fine sandstones and clays with occasionally lignite seams and underclays. There is considerable lateral variation among the strata, the general tendency being for thick sand beds to thin out south-eastward, and become gradually replaced by finer sediment.

#### GEOLOGICAL STRUCTURE:

The strata are in an almost absolutely horizontal position, but when traced for some distance it is seen that there is a dip amounting to not more than 10 to 20 feet per mile in a north-westerly direction.



There are no local disturbances, flexures or faults to be seen; very slight variations in dip which have been observed are probably due to irregularities of original deposition.

#### THE LIGNITE SEAMS:

Two seams have been opened up and worked. The upper one is reached by an inclined plain from an upper river terrace. Three openings have been made, and the workings already extend for some distance. The seam varies in thickness between 44 and 52 inches, the average being 4 feet. The quality of the fuel is very good for a lignite. It is bright and lustrous with a conchoidal fracture. The percentage of ash is only 3, and the fixed carbon is about 53.

There is no slack formed in working this coal; it is all good lump coal.

Both floor and roof of the seam are good, particularly the roof, which is a good hard sandstone. Consequently very little timbering is required, and the mining of such a seam lying in an horizontal position is phenomenally cheap. For many years to come the cost per ton should not exceed eighty cents.

The lower seam lies 78 feet below the upper, and is reached by a short shaft sunk in the alluvial terrace. This seam also crops out on the river bank along which I have followed it for upwards of a mile.

At the foot of the shaft the seam gives the following section:—

Coal .....	4 in.
Clay parting .....	1 "
Coal (bright) .....	2 ft. 6 "
Coal (dull) .....	1 " 2 "
Parting of clay and sand.....	1 " 1 "
Coal .....	3 " 2 "

That is to say there is 6 feet 10 inches of available coal.

The fuel is not so bright and lustrous as the upper seam; it has a hackly fracture. The calorific value, however, is slightly higher, the percentage of ash very small, and when worked it is all lump coal, with practically no slack. A little fire-damp has been encountered in working this seam.

The roof and floor are both excellent.

During my visit to the locality I had only time to follow the outcrop of this seam for a little more than a mile. It is well exposed on the river bank, and in ravines running down to the river, and in several places a section has been cut across the seam to show the thickness. In these the average thickness is about 9 feet, the parting

between the two benches of the seam having thinned out to three or four inches. At one point 10 feet of coal is exposed with two sandy partings of one inch in thickness.

These lignite seams, from their exceptional quality and their horizontal position, afford a very sound mining proposition.

#### TILE AND POTTER CLAY:

In the upper part of the geological section exposed in the canon occurs a remarkably homogeneous deposit of pale-coloured clay, which attains a thickness of 50 feet or more. Experiments made with this clay have proved it to be of remarkable quality. It is perhaps too fine for brick-making without admixture with sand, but would make excellent tiles and pottery, or earthenware. Experiments on a large scale will be necessary, no doubt, but from the samples that I have seen of carefully burnt tiles, I believe that the deposit may prove of considerable value.

The points to be noted are that the quantity is inexhaustible, that the deposit can be worked with a minimum of expense, and delivered to burning kilns at any point in the valley without any expenditure on power.

#### NATURAL GAS:

In drilling a well for water near the Colliery, natural gas was encountered at a depth of 210 feet. Though no great pressure could be expected at such a shallow depth, the indication makes it probable that a very much greater volume and pressure might be encountered at greater depths. The situation as regards geological structure is not greatly different from that of places where very good productions of natural gas have been obtained in Western Canada. It is probable, therefore, that natural gas must be reckoned with among the resources of the property.

It would be of great value as fuel in a tile and pottery factory.

Without maps of the property I am unable to make any estimate of the tonnage of lignite available, but I am convinced that its natural advantages and resources combine to make this area of such great promise as to justify the expenditure of a considerable capital expenditure in developing it.

E. H. CUNNINGHAM CRAIG,

Consulting Geologist.

November 9th, 1912.

# Supplementary Report of ROSEDALE COAL & CLAY PRODUCTS COMPANY, Limited

BY

E. H. Cunningham Craig, B.A., F.G.S.

Consulting Geologist

## INTRODUCTORY

In my preliminary report upon the property held by the Company, I dealt with the evidence noted during a visit to the mine in September, 1912. The position of the property with regard to railway transport and markets was treated of, but my report was chiefly concerned with the evidence observed on the ground.

Since then Mr. Dunn has written an exhaustive report dealing with the whole area, and estimating the tonnage of coal in the Company's property. I can confirm Mr. Dunn's statement that practically the whole area of 14,000 acres should prove to be coal-bearing.

In this supplementary report, however, I propose to deal chiefly with the results of recent development work as observed by myself during a longer visit to the property in October, 1913.

## II. COAL SEAMS:

The mine is no longer in the prospecting stage, but is opened up sufficiently to enable a large tonnage to be extracted.

The lower seam has been opened up by means of one main road and 29 rooms: all are well timbered and rails are laid to the face in each room. The seam averages nine feet of clean coal. There are two small partings of shale of not more than three or four inches in thickness, which are of great assistance in the mining, but which give evidence of thinning to the northward. The seam is practically horizontal, having an inclination of eight or ten feet per mile, and both floor and roof are hard and good.

The conditions of working are so simple that a miner can win ten or even more tons per day in the rooms that have been opened.

The absence of slack or dust in working is a great advantage: gas has been noticed occasionally, and the seam is worked with safety lamps, but during my visit I was unable to detect any signs of gas. It is only when approaching a coulee out in the prairie above that any sign of water is seen, and the seepage of water is even then very small. No pumping is necessary.

The upper seam maintains its thickness of four feet, and is worked in 30 rooms. It is all clean lump coal with a good floor and roof.

While these seams were being opened up last winter 27,000 tons were mined and sold at \$3.00 per ton. Though development work has not proceeded very far, evidence from borings, outcrops and workings makes it clear that at least 2,000,000 tons are already in sight.

## III. QUALITY OF THE COAL.

The coal is one of the best domestic fuels that I have ever seen. It ignites readily, and after flaming fiercely for a short time, burns steadily with a fine red glow. It does not decrepitate nor break down in burning, and a well-banked fire burns for days. The percentage of ash is phenomenally low, being approximately 3, and never rising above about 3.5. The calorific value is very high. On these points the fuel compares very favorably with much of the coal used by the Canadian Pacific and other railways.

The demand for Rosedale coal in Calgary, Saskatoon, and other places is already very great, and contracts for as much as 200,000 tons per annum could be made at once were the output sufficient.

## IV. TRANSPORT.

At present the lower seam is worked from a vertical shaft (about 40 feet haulage). The upper seam is entered by a level adit.

The coal is taken in wagons by teams of horses down to the river and across the ferry to the railway (Canadian Northern), where adequate storage has been provided. The total distance is about half a mile. As soon as the river freezes the teams will be able to cross more expeditiously. This method of transport is somewhat expensive, and is to be regarded only as temporary. The present cost of mining the coal and placing it in truck on the railway is not above \$1.50 per ton. Last winter the cost worked out at slightly less.

The Canadian Pacific Railway has a line surveyed through the Company's property, and passing close to the main shaft, and it is believed that construction will be commenced next year. It is proposed then to open the lower seam by a level adit further down the river, and within a few yards of the rail, so that all hoisting to the surface and cartage will be done away with. It will be possible then to put the coal in truck at a cost of not more than \$1 per ton.

## V. PROFIT.

At present the coal is being sold at \$3.00 per ton in truck on the railway. This price is perhaps unnecessarily low compared with that of inferior coals in the Calgary market, where \$6 and \$7 per ton is charged retail.

Were the coal sized on tables it could probably be sold at a higher average price.

Taking the price in truck on the railway at \$3, and the cost of rining, transporting, and putting in truck at \$1.50 it is evident that a very handsome profit is assured. The mine is at present equipped to turn out 500 tons per day, and the output will probably reach that figure before the end of this year.

A higher tonnage can easily be arranged for by opening the seams, especially the lower seam, at another point.

With an output of only 200,000 tons per annum, i.e., a profit of \$300,000, interest and sinking fund on the \$500,000 Debentures will absorb \$42,000, leaving \$258,000 for management expenses and interest on the Ordinary Shares (\$1,000,000.)

## VI. BRICK AND TILE CLAY.

It is not proposed to commence operations on the brick and tile clay till the coal mine is in full working.

An unlimited supply of excellent clay is present on the ground just beneath the prairie plateau. The thickness of the deposit is about 60 feet, and it can be delivered by chutes to any part of the alluvial ground near the river that may be selected for the brick-works.

Experience at Medicine Hat has shown that very large profits are to be made by brickworks, even where the material has to be transported a considerable distance. The demand for bricks is very great in Western Canada, and there is no manufactory of high class tiles, for which I believe the Rosedale clay is admirably suited.

A brick and tile works should therefore be a source of great additional profit.

## VII. CONCLUSION.

It is, however, as a Colliery that the Rosedale Company has been formed principally. I have no hesitation in stating that as regards quality of the fuel, cheapness of working, facilities for transport, and favorable situation as regards markets, I have seen nothing in Canada to compare with the Rosedale Coal and Clay Products Co. Profitable working is absolutely assured, and how great the profits will be will depend merely upon the scale upon which working is undertaken.

E. H. CUNNINGHAM CRAIG,  
Consulting Geologist.

15th November, 1913.

## GOVERNMENT OF THE PROVINCE OF ALBERTA

### Department of Public Works

Calgary, 19th July, 1913.

Dear Sir:—

In answer to your request re my opinion of the coal property controlled by the Rosedale Coal and Clay Products Co., Ltd., near Drumheller, I beg to say that from my knowledge and experience in the Province of Alberta I would consider this property to be one of the most valuable and reliable properties situated in the domestic coal field of this province.

The property has an ideal location with relation to markets, being situated close to the Canadian Northern Railway line, giving direct connection to the chief markets of Alberta, Saskatchewan and Manitoba. In addition to this line the Canadian Pacific Railway Co., are building over the property which will open up further markets.

There are two proved seams on this property. The top seam is 4 ft. in thickness with a good strong shale roof and excellent working conditions. The coal is a splendid fuel for domestic use.

The second seam which is 85 feet lower contains over 8 ft. of good clean coal in two distinct benches, separated by a band of shale. This band of shale runs out to the south and east of the property where the seam is 9 ft. in thickness. Should it be decided to use machines for mining this coal the parting of shale would provide very advantageous mining.

The quality of coal from this seam is unsurpassed by any other domestic coal in the province, being high in fixed carbon and low in ash and moisture.

The working conditions are such that the coal can be mined at a very low figure which will insure very profitable operation.

Yours truly,

ANDREW N. SCOTT,

Dist. Inspector of Mines.

J. F. MOODIE, ESQ.  
Calgary, Alta.

Calgary, Alberta, 19th July, 1913.

Mr. W. Georgeson, Sr.,  
President of the Rosedale Coal & Clay Products Co.,  
Calgary, Alberta.

Dear Sir:—

As per request I am giving you a very conservative estimate of the value of the Rosedale Coal and Clay Products Co.'s property, in so far as the coal on the two seams that are partially developed, are concerned.

If you would look at my report of last March, you will note two seams of coal—one six feet thick and the other nine feet.

I would call both seams 12 feet of clean coal. You have 14,000 acres of coal land from which I deduct 1,000 acres to allow for any coal that may have been eroded by the Red Deer River and freshets cutting coulees.

So we now have 13,000 acres with 12 feet of clean coal. Your coal as it ships occupies 33 cu. ft. to the ton, and with the above data I find that there is 16,000 tons to the acre, or 208,000,000 tons on the property. Deducting 20 per cent. for unforeseen irregularities we have 166,-

400,000 tons. This does not include other workable seams which are not exposed. With a modern plant, and your natural advantages on the property you should produce coal at not exceeding \$1.00 per ton, which includes rental and reasonable over-head charges.

The clay products, I am not well enough acquainted with to set a value on, but so far as I can judge there is a large quantity of valuable clay which can be worked economically. **THERE IS EVERY POSSIBILITY OF GAS AND STRONG INDICATIONS OF OIL.** These not being developed I cannot value.

The present plant, including the underground development work would be worth from \$20,000 to \$40,000 (depending at what point new development work would proceed) to any one taking hold of it now.

I have roughly estimated that it would take about \$120,000 for machinery and plant to produce 1,000 tons per day.

Yours truly,

B. W. DUNN, S.B.E.M.

City.

## MEMORANDUM OF ASSOCIATION

### The Rosedale Coal & Clay Products Company, Limited

1. The name of the Company is "THE ROSEDALE COAL & CLAY PRODUCTS COMPANY, LIMITED."

2. The registered office of the Company will be situate at the City of Calgary in the Province of Alberta.

3. The objects for which the Company is incorporated are:—

(1). To acquire mines, mining rights and metalliferous lands, and any interest therein, and to prospect for, mine, get, dress, buy, sell, export, manufacture and otherwise deal with coal, and fuel, clay, ironstone, auriferous quartz and precious metals and stones of all kinds and descriptions, and to search for, crush, get, quarry, wash, smelt, calcine, refine, dress, amalgamate, manipulate, prepare for market and to buy, sell and otherwise dispose of same, and to carry on the business of miners, metallurgical operators and any other business and operations which may seem conducive to the objects of the company or any of them.

(2) To prospect for, open, work, explore, develop and maintain gold, silver, copper, coal, clay, iron, precious stones, and other mines, minerals and other rights and properties and works, and to search for and obtain information in regard to mines, claybeds, mining districts and localities, and for this or any similar purpose or purposes to employ and equip expeditions and commissions, explorers, experts and other agents.

(3) To carry on the business of manufacturers of bricks, tiles, pipes, pottery, earthenware, china and terra cotta and ceramic ware of all kinds, purveyors and manufacturers of cement and dealers in artificial stone, whether for building, paving or other purposes; and generally and without limitation by reason of the foregoing enumeration to manufacture, sell and deal in articles and goods of all kinds in the manufacture of which clay, brick-earth and iron or other mineral substances or any kindred product is used, and to undertake such other businesses and processes as are customarily or usually carried on in connection therewith, or are naturally incident thereto.

(4) To carry on the business of manufacturing chemists and to manufacture into marketable commodities or otherwise dispose of all residual or by-products resulting from any manufactures or operations in which the Company may be engaged.

(5) To carry on as a joint stock Company, limited, the business of manufacturers, merchants, government and general contractors and commission agents.

(6) To promote, make, provide, acquire, take on lease, or agreement, lease, let, grant, running powers over work, use and dispose of railways, tramways and other roads, ways, and means of access to any part or parts of the property of the Company, and to contribute to the expense of promoting, making, providing, acquiring, working and using the same.

(7) To purchase, take on lease, or acquire by gift, grant, or otherwise to hold, control, settle, cultivate, improve, lease, mortgage, exchange, sell or otherwise dispose of timber, farming, fruit, ranching, grazing, coal, petroleum, mineral and other lands or any estate or interest therein and the products thereof and mining, irrigation, water and other rights, and generally to deal with the same commercially.

(8) To acquire by purchase, lease, gift, exchange, or otherwise and to build, erect, construct, own, equip, operate, maintain and control mills, factories, and manufactories of all kinds, fuel and lumber yards, stores warehouses, hotels, boarding houses, churches, elevators and buildings of all kinds, furnaces, foundries, work, sales and machine shops, cold storage depots and plants, ice houses, smelters, reduction, concentration, electric and hydraulic works, power plants, refrigerators, refrigerator and other cars, engines abattoirs, stockyards, sidings, tracks, spurs, piers, wharves, steamships and other ships, terminal and shipping facilities of all kinds, booms, timber slides, flumes, viaducts, reservoirs, aqueducts, water works and sewer systems, irrigation works, quarries, brickyards, lime kilns, cement works, coke ovens, coal and other mines and such other works, buildings, plant, machinery, boilers, engines, apparatus, appliances, and conveniences as may seem directly or indirectly to advance the interests of the company, and to contribute to or otherwise assist and take part in the construction of equipment, improvement, working management, operation or control thereof and generally to construct, purchase, or otherwise acquire, own, alter, lease, mortgage, sell, exchange or otherwise of any buildings, stores, offices, plant, machinery, works, or other undertakings that may seem necessary or convenient for all or any of the purposes of the Company.

(9) To carry on business of coal factors, merchants, either wholesale or retail, to buy, sell, deal and trade in all kinds of live stock, including horses, cattle, sheep and hogs and in dead meats and the products thereof, poultry of all kinds, green groceries, flour, feed, farm and garden produce of all kinds, dairy and agricultural products and to carry on business as importers and exporters of and dealers in live stock, horses, cattle, sheep, hogs and poultry, ranchers, farmers, gardeners, nurserymen, stock and cattle dealers, meat packers, butchers, purveyors of meats, provisions, general merchants and dealers in goods, wares and merchandise, provisions and supplies and generally to maintain, operate and conduct a general mercantile business.

(10) To develop the resources of and turn to account the lands, buildings, and rights for the time being of the company in such manner as the company may think fit and in particular by reclaiming,

clearing, farming, cultivating, draining, irrigating, fencing, planting or otherwise improving the same or any terms or system that may be considered advisable and by establishing towns, villages and settlements.

(11) To lay out and subdivide the lands of the company into town, suburban and other lots, parks, farms, farm and experimental plots of such area as may be thought fit, and to erect or cause to be erected thereon houses, warehouses, farm buildings, barns, stables, churches, schools and buildings of any kind or description whatsoever.

(12) To aid, assist, encourage and promote emigration and immigration of persons with the object of settling upon the lands of the company as miners, farmers, cultivators, residents or tenants and to colonize and settle the said lands and for the purposes aforesaid to lend or grant such sum or sums of money as may seem necessary in the premises.

(13) To carry on business as publishers, printers, and advertising contractors and agents and any other businesses which may be usefully carried on in connection therewith and to acquire and undertake the whole or any part of the business property and liabilities of any person or company carrying on any business similar to the said businesses or any of them.

(14) To lend or advance money on the security of lands, buildings, livestock, timber standing or otherwise, farm products and agricultural products of all kinds, machinery, implements, mines, minerals and goods, wares and merchandise and property of any kind whatsoever on such terms and at such rate of interest as may be thought fit.

(15) To carry on business as railway, building and general contractors, commission insurance, general and financial agents, and brokers and to engage in any business or transaction in partnership or otherwise in connection with any person, partnership, corporation or company.

(16) To buy, sell, lease, mortgage or in exchange, hire or otherwise acquire, or dispose of any rights, franchises, easements and privileges which the company may think fit expedient or desirable to purchase or acquire for all or any of the purposes of its business.

(17) To manage lands, buildings and other property owned, leased, constructed, or acquired by the company and other property whether belonging to the company or not, and to collect the rents and income thereof.

(18) To carry on the business of electricians, mechanical engineers and manufacturers and workers and dealers in electricity, gas, natural or otherwise, motive power, heat and light, any business in which the application of electricity, gas or any power, like or otherwise is or may be convenient, useful or ornamental, and to manufacture, sell and lease to other corporations, and to public and private consumers, electric, gas and oil machines, appliances and devices of all kinds for the production, supply and use of light, heat

and power, and all goods, wares, merchandise, property and substance, now used in the production thereof or incidental thereto or that hereafter may be invented, discovered or become known therein, and to manufacture, contract for and furnish light, heat and power to other persons, firms and corporations public and private. Provided however that any sale or other disposition of hydraulic or other power or force when made beyond the lands of the company shall be subject to local and municipal laws and regulations in that behalf.

(19) To instal, own, equip, maintain and operate a telephone system in connection with any of the businesses of the Company.

(20) To construct, purchase, lease or otherwise acquire any transportation business and any tramway or tramways and equip, maintain and work by horse, electric and mechanical power all tramways or transportation businesses belonging to or acquired by the company or which the company may possess a right to operate, run over and work.

(21) To carry on business as carriers of goods and passengers, omnibuses and van proprietors and to enter into contracts with any person or company as to interchange of traffic, joint working or otherwise as may seem expedient.

(22) To construct, improve and maintain, or to aid in the construction, improvement and maintenance of roads, bridges, viaducts and aqueducts and other works for all or any of the purposes of the company.

(23) To sink oil, gas and water wells and shafts, and make, build, construct, erect, lay down and maintain reservoirs, dams, culverts, main and other pipes and appliances and to execute and do all other works and things necessary or convenient for obtaining, storing, selling, delivering, measuring and distributing oil, gas or water for the creation, maintenance or development of hydraulic, electrical or other mechanical power or for domestic or any other purposes whatsoever.

(24) To apply for, purchase or otherwise acquire any patent rights, licenses, trade marks, trade names, concessions and the like conferring any exclusive or non-exclusive or limited right to use any secret or other information as to any invention which may seem capable of being used for any of the purposes of the company or the acquisition of which may seem calculated directly or indirectly to benefit the company and to use, exercise, transfer or grant licenses in respect of or otherwise turn to account the rights or information so acquired.

(25) To enter into any arrangement with any Provincial, Municipal, Civic, Local or other authorities that may seem conducive to the Company's objects or any of them and to obtain from any such authority rights, privileges or concessions which the company may think it desirable to obtain and to carry out, exercise and comply with any such arrangement, rights, privileges and concessions.

(26) To establish agencies and branches in the Dominion of Canada and elsewhere, and to regulate and discontinue the same and



to procure the company to be licensed, and to designate any person therein as attorney or representative of the company with power to represent the company in all matters according to the laws of such foreign country and to accept service for and on behalf of the company, of any process or suit.

(27) To undertake the liabilities of any person, partnership, association or company and to enter into arrangements for sharing of profits, union of interest, co-operation, joint adventure, reciprocal concession or otherwise of any person, association, partnership or company carrying on or engaged in any business or transaction which this company is authorized to carry on or be engaged in or any business or transaction capable of being conducted so as to benefit the company and to amalgamate with any other company having objects in whole or in part similar to this company; and to purchase or otherwise acquire hold, pledge, hypothecate or sell the shares, bonds, debentures, or other securities of or in any other company or corporation and to guarantee payment of the principal and of interest of the bonds, debentures or other company or corporation and to subsidize, or promote any company or corporation having objects similar, in whole or in part to those of this company and while holding any such shares, bonds, debentures or other securities or any other company or corporation to exercise all the rights and powers of ownership thereof, including the right to vote thereon.

(28) To acquire from any person, partnership, association, company or corporation doing business of a nature similar in whole or in part to that which the company is authorized to carry on, the good will, rights, property and assets of all kinds of such person, partnership, association, company or corporation and to assume the whole or any part of the liabilities of any such person, partnership, association, company or corporation and to pay for the same in whole or in part in cash or with the stock, bonds, debentures or other securities of this company or otherwise and to discharge in like manner any liabilities or obligations of any person, partnership, association, company or corporation whose business may be acquired by the company as aforesaid.

(29) To draw, make, accept, endorse, discount, execute and issue promissory notes, bills of exchange, cheques, bills of sale, bills of lading, warehouse receipts, warrants, securities under The Bank Act, bonds, debentures, mortgages and other negotiable or transferrable instruments or securities of every nature and kind whatsoever.

(30) To borrow, raise or secure the payment of money in such manner as the company shall think fit and in particular by the issue of debentures, debenture stock (perpetual or terminable) bonds, mortgages or any other securities founded, based or charged upon all or any of the property and rights of the company, both present and future, including its uncalled capital, or without any such security and upon such terms as to priority or otherwise as the company shall think fit.

(31) To raise and assist in raising money for and to aid by way of bonus, subsidy, promise, endorsement, guarantee or otherwise any person, for, association or corporation with which the company may have business relations and to guarantee the issue of or payment of the principal and of interest on the shares, bonds, debentures or other securities or obligations of any company or association and to pay or provide for the brokerage commission and underwriting in respect of any such issue and generally to act as employee, agent or manager of any such person, association, firm or corporation and to guarantee the performance of contracts of any such person, association, firm or corporation.

(32) To receive money on deposit with or without allowance of interest thereon, and to advance and lend money upon such security therefor and to invest the surplus funds of the company in redemption of its debentures or other securities or otherwise in such manner as may from time to time be determined.

(33) To provide for the welfare of persons in the employment of the company or formerly engaged in any business acquired by the company, and the wives, widows and families of such persons by grants of money, pensions, insurance or other payments and by providing and subscribing towards places of instruction and recreation and hospitals, dispensaries, medical and other attendance and other assistance as the company shall think fit and to form, subscribe to or otherwise aid benevolent, religious, scientific, national or other institutions, or objects which shall have any moral or other claims to support or aid by the company by reason of the locality of its operations or otherwise.

(34) To promote or assist in promoting and to become a shareholder in any subsidiary or other company carrying on or having for its objects the operation of any business similar in whole or in part of this company.

(35) To issue and allot as fully paid up stock shares of the capital stock of the company as consideration for the work done, guarantees given or agreed to be given or services rendered or agreed to be rendered in furtherance of the objects of the company including services rendered or to be rendered to the company by the promoters of the company.

(36) To pay the costs and expenses of and preliminary and incidental to the formation, establishment and registration of the company.

(37) Upon any issue of shares, bonds and debentures or other securities of the company to employ brokers, commission agents and underwriters and to provide for the remuneration of such persons for their services by payment in cash or by the issue of shares, debentures or other securities of the company, or by the granting of options to take the same or in any other manner allowed by the law.

(38) To sell, dispose of or transfer the business, property, assets and undertakings of the company or any part thereof for any consideration which the company may seem fit to accept.

4. The Liability of the members is limited.

(39) To accept stock, or shares in, or the bonds and mortgages, debentures or other securities of any other company in payment or part payment for any services rendered or for any sale made to or debt owing from any such company.

(40) To distribute in specie or otherwise as may be resolved any assets of the company among its members and particularly the shares, bonds, debentures or other securities of any other company held by or otherwise belonging to this company or formed to take over the whole or any part of the assets or liabilities of this company, and for such purpose to distinguish and separate capital from profits, but so that no distribution amounting to a reduction of capital be made, except with the sanction for the time being required by law.

(41) The business or purpose of the company is from time to time to do any one or more of the acts and things herein set forth, either as principals, factors, trustees or agents, and generally to carry on any business which may seem to the company capable of being conveniently or profitably carried on in connection with the above, or calculated directly or indirectly to enhance the value and render profitable any of the properties or rights of the company, and to do all and everything necessary, suitable and convenient or proper for the accomplishment of any of the purposes or the attainment of any one or more of the objects herein enumerated or incidental to the powers herein named, or which shall at any time appear to be conducive or expedient for the protection or benefit of the company. And it is hereby declared that in the interpretation of this clause the meaning of any of the objects of the company shall not be restricted by reference to any other object or by the juxtaposition of two of more objects, and that in the event of any ambiguity this clause shall be construed in such manner as to widen and not to restrict the powers of the company, which may conduct its business in any province or territory in the Dominion of Canada or in any foreign countries and may have one office or more than one office and keep the books of the company in any place in which the company may do business although outside of the Province of Alberta except as otherwise may be provided by law. Provided that nothing herein contained shall be deemed to confer upon the Company any powers to which the jurisdiction of the Legislature of the Province of Alberta does not extend, and particularly shall not be deemed to confer the right to issue promissory notes in the nature of bank notes and all the powers in the Memorandum of Association contained shall be exercisable subject to the Provisions of the law in force in Alberta and regulations made thereunder in respect of the matters therein referred to, and especially with respect to the construction and operation of railways, telegraph and telephone lines, the business of insurance and any other business with respect to which special laws and regulations may now be or may hereafter be put in force.

5. The capital of the Company is One Million Five Hundred

Thousand (\$1,500,000.00) Dollars divided into Ten Thousand (10,000) ordinary shares of One Hundred (\$100.00) Dollars each and Five Thousand (5,000) preferred shares of One Hundred (\$100.00) Dollars each. The Company has power from time to time to increase or reduce its Capital, and to issue any shares in the original or increased capital with ordinary, preferred, deferred or other special rights or such restrictions whether in regard to dividend, voting, return of capital, or otherwise as the Company may from time to time by special resolutions determine, Provided always that if and whenever the capital of the Company is divided into shares of different classes, the rights and privileges of any such class may be varied with the consent in writing of the holders of three-fourths of the issued shares of such class, or with the sanction of an extraordinary resolution passed at a general meeting of the holders of the shares of that class. At every such separate general meeting the quorum shall be two persons at least holders or representing by proxy one-third of the issued shares of such class.

6. The provisions of Table "A" of The Companies' Ordinance shall not apply to this Company.

We, the several persons whose names and addresses are hereunder subscribed are desirous of being formed into a company in pursuance of this Memorandum of Association and we respectively agree to take the number of shares in the capital of the company, set opposite our respective names, and undertake, consent and agree to act as the first directors of the company.

Dated this Eighth day of January A.D. 1912.

Names, Addresses and Descriptions of Subscribers	No. of Shares Taken by Each Subscriber.
Alexander Hannah of Calgary, in the Province of Alberta,, Solicitor .....	One Share
Daniel Lee Redman, of Calgary, in the Province of Alberta, Student-at-law .....	One share
Henry Lillie, of Calgary, in the Province of Alberta, Solicitor .....	One share

Signed by the above named at the City of Calgary in the Province of Alberta.

In the presence of:

L. L. BALMAIN,  
of the City of Calgary, Stenographer.

Issued, dated and filed with the Registrar of Joint Stock Companies of the Province of Alberta, this 29th day of June, A.D. 1914.

(Sgd.) W. GEORGESON

(Sgd.) J. F. MOODIE

(Sgd.) WM. CARSON

(Sgd.) C. STIRRETT

(Sgd.) GEO. PIRIE, M.D.

Per J. F. MOODIE, Atty.

(Sgd.) H. H. MOORE

**Note:**—The capital has since been divided into 300,000 shares of a par value of \$5.00 each, all common shares.







AT GENERAL VIEW OF ROSEDALE





